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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/786,841	09/19/2001	Jan Van de Berg	310.1019	6597

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MUSERLIAN, LUCAS AND MERCANTI, LLP  
600 THIRD AVENUE  
NEW YORK, NY 10016

EXAMINER

JACKSON, ANDRE K

ART UNIT	PAPER NUMBER
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2856

DATE MAILED: 01/29/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/786,841

Applicant(s)

VAN DE BERG ET AL.

Examiner

Andre' K. Jackson

Art Unit

2856

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 November 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to because in Figure 1 boxes "4.i" and "4.m" should be labeled in order to have a better read of the drawings. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over DE 4030284 in view of Roberts and Nishijima et al. (EP 0329436).

Regarding claim 1, DE 4030284 discloses a reading device, a resonant circuit and a sensor. What is not disclosed by DE 4030284 is wirelessly generating the electromagnetic field and wirelessly recording the response. However, Roberts discloses a means for wirelessly generating the electromagnetic field and wirelessly recording the response

(Page 1, lines 93-101). Therefore, to modify DE 4030284 to include a means for wirelessly generating the electromagnetic field and wirelessly recording the response would have been obvious to one of ordinary skill in the art at the time of invention in view of the teachings of Roberts. The use of wireless transmitters and receivers provides remote communication and is less prone to environmental disruption. The skilled artisan would therefore be motivated to substitute the conventional generators with the more robust wireless system. There is some dispute as to whether DE 4030284 discloses moisture sensitive material that increases its resistance when it comes into contact with moisture. However, Nishijima et al. discloses a "Moisture and dew-detection sensor" which discloses a moisture sensitive material that increases its resistance when it comes into contact with moisture (Page 5, lines 20-24). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify DE 4030284 to include where a moisture sensitive material that increases its resistance when it comes into contact with moisture as taught by Nishijima et al. since the substance swells and the particles becomes unsatisfactory causing an increase. Therefore, using a substance that increases would not require extra calculation.

Regarding claims 2 and 3, DE 4030284 does not disclose that the Q factor of the resonant circuit increases and decreases when the resistance of the moisture sensitive material increases and decreases.

However, Roberts discloses that the Q factor of the resonant circuit increases and decreases when the resistance of the moisture sensitive material increases and decreases (page 1, lines 86-92). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify DE 4030284 to include feature that the Q factor of the resonant circuit increases and decreases when the resistance of the moisture sensitive material increases and decreases as taught by Roberts since they are from the same field of endeavor.

Regarding claims 4 and 5, DE 4030284 does not show an LC circuit. However, to modify DE 4030284 to include an LC circuit which is well known in the art would have been clearly within the purview of one of ordinary skill in the art at the time of invention since it is well known to use a LC as a measuring circuit. It is inherent that part or all of the LC circuit be made of moisture sensitive material.

Regarding claim 6, neither DE 4030284 nor Roberts disclose that the moisture sensitive material comprise a binding agent capable of swelling in moisture. However, Nishijima et al. discloses a moisture sensitive material comprises a binding agent capable of swelling in moisture (page 5, line 25). Therefore, the skilled artisan would have been inclined to modify DE 4030284 to include a moisture sensitive material comprise a binding agent capable of swelling in moisture as taught by Nishijima et al. since they are from the same field of endeavor.

Regarding claim 7, neither DE 4030284 nor Roberts disclose that the moisture sensitive material comprises a binding agent in which particles are capable of swelling in moisture. However, Nishijima et al. discloses a moisture sensitive material comprises a binding agent in which particles are capable of swelling in moisture. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify DE 4030284 to include a moisture sensitive material comprises a binding agent in which particles are capable of swelling in moisture as taught by Nishijima et al. since they are from the same field of endeavor.

Regarding claim 8, neither DE 4030284 nor Roberts disclose that the moisture sensitive material is arranged on a carrier in the form of a coating. However, Nishijima et al. discloses a moisture sensitive material is arranged on a carrier in the form of a coating (page 5, line 63). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify DE 4030284 to include a moisture sensitive material is arranged on a carrier in the form of a coating as taught by Nishijima et al. since they are from the same field of endeavor.

Regarding claim 9, neither DE 4030284 nor Roberts discloses where at least part of the LC circuit is formed by a coating. However, Nishijima et al. discloses where at least part of the LC circuit is formed by a coating (Page 5, lines 10-24). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify DE

4030284 to include where at least part of the LC circuit is formed by a coating as taught by Nishijima et al. since it would make the circuit more accurate.

Regarding claim 10, DE 4030284 discloses that the transmitter-receiver means is designed as a transmission system for detecting an electromagnetic response signal generated by at least one sensor.

Regarding claim 11, DE 4030284 discloses where at least one reading device determines on the basis of the intensity of the detected response signal to what extent the at least one sensor is in contact with the moisture (Figure 2).

Regarding claim 12, DE 4030284 discloses that the reading device comprise a threshold circuit (Figure 2, Us).

Regarding claims 13-14, according to the specification on page 9, lines 12-14 "It is also possible, that the transmitter-receiver unit is designed as a known per se absorption system. Therefore, it would have been within the purview of the skilled artisan to modify the invention without undue experimentation.

Regarding claim 15, DE 4030284 discloses where one reading device has a threshold circuit to determine whether the amount of energy absorbed is below a predetermined value (Column 2, lines 52-60).

Regarding claim 16, DE 4030284 does not disclose an alarm signal when moisture is detected. However, Roberts discloses an alarm (page 1,



lines 111-117). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify DE 4030284 to include an alarm as taught by Roberts since an indication of moisture by an alarm or indicator would be extremely useful to the operator.

Regarding claim 17, DE 4030284 discloses where one sensor comprises a microprocessor connected with the resonant circuit and where an identification code is stored and passed to the resonant circuit (Column 1, lines 55-67 and column 3, lines 11-33).

Regarding claim 18, DE 4030284 comprises a central control unit that is connected with at least one reading device for obtaining information about the presence of moisture at one sensor.

Regarding claim 19, DE 4030284 discloses a resonant circuit having a resonance frequency and being at least partly formed from a moisture sensitive material with an electrical resistance. The Applicant believes the moisture sensitive material in DE 4030284 does not increase when in contact with moisture. However, Nishijima et al. discloses a moisture sensitive material that increases its resistance when it comes into contact with moisture and that the moisture sensitive material is arranged on a carrier material in the form of a coating and part of the circuit being formed by the coating (Page 5, lines 20-24). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify DE 4030284 to include where a moisture sensitive

material that increases its resistance when it comes into contact with moisture and that the moisture sensitive material is arranged on a carrier material in the form of a coating and part of the circuit being formed by the coating as taught by Nishijima et al. since the substance swells and the particles becomes unsatisfactory causing an increase. Therefore, using a substance that increases would not require extra calculation.

Regarding claim 20, neither DE 4030284 nor Roberts discloses where the entirety of the LC circuit is formed by a coating. However, Nishijima et al. discloses where at least part of the LC circuit is formed by a coating (Page 5, lines 10-24). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify DE 4030284 to include where at least part of the LC circuit is formed by a coating as taught by Nishijima et al. since it would make the circuit more accurate. Covering the entire circuit is not disclosed but to cover the entire circuit is certainly within the purview of the skilled artisan since having the entire circuit covered would give the user a broader measurement range.

Regarding claim 21, DE 4030284 discloses a resonant circuit having a resonant frequency and where one sensor comprises a microprocessor connected with the resonant circuit and where an identification code is stored and passed to the resonant circuit (Column 1, lines 55-67 and column 3, lines 11-33). The circuit being partly formed

from a moisture sensitive material that increases with the contact of moisture is not disclosed. However, Nishijima et al. disclose a moisture sensitive material that increases its resistance when it comes into contact with moisture (Page 5, lines 20-24). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify DE 4030284 to include where a moisture sensitive material that increases its resistance when it comes into contact with moisture as taught by Nishijima et al. since the substance swells and the particles becomes unsatisfactory causing an increase. Therefore, using a substance that increases would not require extra calculation.

### ***Response to Arguments***

4. Applicant's arguments with respect to claims 1-5,10,12,16 and 18 have been considered but are moot in view of the new ground of rejection.

Regarding claim 1, the Applicants' have argued that DE 4030284 does not teach where the moisture sensitive material increases when the material is in contact with moisture. However, on page 1, paragraph 2 of the Applicants' Specification it is stated that DE 4030284 does teach where the moisture sensitive material increases when the material is in contact with moisture.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andre' K. Jackson whose telephone number is (703) 305-1522. The examiner can normally be reached on Mon.-Fri. 7AM-4PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on (703) 305-4705. The fax phone numbers for the organization where this application or proceeding is assigned are N/A for regular communications and N/A for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

A.J.   
January 27, 2003

HELEN KWOK  
PRIMARY EXAMINER

